

ARNOLD ARBORETUM

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Rosa rugosa, which is an old inhabitant of gardens, is a native of the coast sand-dunes of northeastern Asia from northern Japan to Kamtchatka. The thick dark green leaves seem able to resist the attacks of insects and the diseases which often discolor the leaves of many Roses. The flowers of the typical wild plant from Japan are red, but there are varieties with pure white and with clear pink flowers. The Kamtchatka plant, which is less ornamental than the Japanese plant, with smaller and thinner leaflets and smaller flowers is treated by many botanists as a species distinct from the Japanese plant and called by them *Rosa kamtschatica*. There is a double-flowered form of this continental plant in the Arboretum collection which produces flowers which are as ugly as it is possible that a Rose flower can become. No other Rose is hardier than *Rosa rugosa*, and left to itself it spreads into great thickets. No shrub is better suited to grow in exposed positions on the New England coast; it grows equally well in the rich soil of the garden, and no other Rose is so valuable in this climate for making low hedges. Valuable as the Japanese *Rosa rugosa* has proved itself as a garden plant its greatest value is in its ability to transmit its hardiness, handsome foliage and large flowers to its hybrid offspring. Among these are already several beautiful garden plants which suggest that the plant breeder who wishes to produce new races of Roses able to grow and flower successfully in the northern states must combine *Rosa rugosa* and its hybrids with other hardy Roses. Rose breeders are singularly reticent about the plants they have used in their work, and there appear to be no printed records of

the parentage of any of the *Rugosa* hybrids with the exception of the two which have been created in this Arboretum. One of the earliest of the *Rugosa* hybrids, Madam George Bruant, has pure white semi-double flowers which continue to open until the coming of frost. More distinct is the plant named Conrad Ferdinand Meyer which was raised in Germany. This is a large shrub, with large, nearly double, clustered pink flowers. The foliage and flowers show little *Rugosa* influence, but its vigor and hardiness are probably derived from the Japanese parent. Nova Zembla is a white-flowered sport of this Rose. At least twenty other European hybrids of *Rosa rugosa* have received names. Some of these are not distinct and others have little to recommend them as garden plants. One of the handsomest and most distinct of these hybrids was raised several years ago by Paul & Sons of Cheshunt, England, by whom it was named *Rosa rugosa repens alba*. This plant has the foliage of *Rosa rugosa*, large flowers with petals between which there is more space than in the typical flowers of *Rosa rugosa*, and long, stout, prostrate stems. In England standards with weeping branches have been successfully grown by budding this Rose on the tall stems of other Roses, and it would probably prove one of the hardiest standard Roses which could be grown here. It can be trained over a fence or arbor, but can be best used to cover banks and the ground under other shrubs or small trees. The Japanese *Rosa Wichuraiana* was at one time largely used as a ground cover in the Boston Parks, but it has not always proved hardy, and *Rosa rugosa repens alba* is a better ground cover in this climate. This Rose has been growing in the Arboretum for several years and has now been planted on the fence close to the entrance to the Arboretum nursery on Prince Street. The two *Rugosa* hybrids raised by Dawson at the Arboretum have proved to be good garden plants. In habit *Lady Duncan* resembles *R. rugosa repens alba* but the stems are not as stout; it can be used as ground cover or trained on an arbor or trellis. The flowers are rather smaller than those of *R. rugosa* and pure pink, and the leaflets are smaller and very lustrous. This Rose was obtained by crossing *Rosa rugosa* with *R. Wichuraiana*. The Arnold Rose, *R. Arnoldiana*, was made by Dawson, by crossing *R. rugosa* with the hybrid Tea Rose, General Jacqueminot. It is a stout bush with good foliage and large, bright red, single flowers, and when in bloom perhaps the showiest of the Roses in the Shrub Collection.

Deutzias. The climate of eastern Massachusetts is too severe for the successful cultivation of many of the handsomest of these plants which flower much better in the middle states and in Rochester, New York, than they do in the Arboretum. The mild winter has favored them, however, and several of the Chinese species have been flowering here in a way which shows what valuable garden plants they may be when climatic conditions suit them. The *Deutzia* which has proved perfectly hardy in the Arboretum in nearly thirty years of trial, the North China *D. parviflora*, is not one of the handsomest species, but crossed with the Japanese *D. gracilis* it has produced *D. Lemoinei* which has inherited much of the hardiness of its Chinese parent and proved to be an excellent garden plant here. It is a shrub sometimes

five or six feet tall and broad which every year about the middle of June covers itself with large clusters of pure white flowers. There are several smaller and more compact forms of this hybrid in the collection and they are all good garden plants. Another Chinese *Deutzia*, *D. hypoglauca*, is a handsomer plant than *D. parviflora* and, judging by its behavior in the Arboretum during the last three years, it is equally hardy. Another Chinese species, *D. grandiflora*, is the first of the genus to bloom here. It is a dwarf plant with large flowers in from one- to three-flowered clusters. Although known to botanists since 1832 it has only recently found its way into gardens through the agency of the Arboretum. Several Chinese species which have been injured in previous winters have been covered with flowers this summer and, if they could be depended on to flower as well every year, would be important additions to New England gardens. Among these Chinese species which have flowered here abundantly for the first time are *D. globosa*, *D. Wilsonii*, *D. discolor*, *D. discolor major* and *D. longifolia*. The last in one of its forms has been covered with large loose clusters of pale pink flowers and proves to be the handsomest of the new Chinese species, although *D. globosa* with its erect stems thickly covered toward the ends with clusters of pure white flowers has been almost as attractive.

Rhododendron (Azalea) arborescens. As the flowers of the yellow-flowered Appalachian Azalea (*R. calendulaceum*) begin to fade the first of those of *Azalea arborescens* open. This is a handsome plant, and the beauty of the pure white fragrant flowers is increased by the bright red color of the long filaments and style. This is also an Appalachian plant, and sometimes at an elevation of about 5,000 feet covers with dense thickets only a few feet high and sometimes an acre in extent the treeless summits of Blue Ridge Mountains, and in their sheltered valleys sometimes grows into great arborescent bushes twenty feet tall and so justifies its name.

A good combination. Two native plants, *Cornus racemosa* and *Rosa virginiana*, or, as it is often called, *R. lucida*, are in flower and the pure pink flowers of the Rose harmonize so well with the creamy white flowers of the Cornel that these two plants can well be used together in natural planting. *Rosa virginiana* is confined to the northeastern seaboard region of the continent, and in its best form is a tall shrub with lustrous leaves and pure pink flowers which now perfume the borders of the roads in some parts of the Arboretum. A beautiful floral display is also made when this Rose grows with the native Elder (*Sambucus canadensis*), as it does sometimes in the rear of Massachusetts sea cliffs.

Lonicera Giraldii. The attention of persons interested in climbing plants is called to this handsome Chinese Honeysuckle which is now flowering on the trellis in the Shrub Collection. It is remarkable in its narrow, long-pointed, dark green leaves, dark wine-colored, pubescent flowers with protruding pure white filaments and style. The flowers are produced in many-flowered clusters terminal on short leafy, axillary branchlets.

Cornus amomun, the Silky Cornel, which has been much used in the Arboretum, is now opening its flowers. In cultivation it is not a satisfactory plant unless it can be given sufficient room for its wide-spreading branches to extend freely over the ground. When crowded by other plants the branches become erect and it loses its real beauty and value. To be seen at its best this Cornel should have a clear space with a diameter of not less than twenty feet in which to spread. It is well suited for the front of groups of trees and shrubs, and there is no better shrub to plant by the margins of ponds and streams where its long branches can hang gracefully over the water. Its purple stems are attractive in winter, and the bright blue fruits which ripen in the autumn add to the value of this native shrub. In the Cornel Group, at the junction of the Meadow and the Bussey Hill Roads, there is a good specimen of this plant, and its value for planting near water can be seen on the border of the small pond in the rear of the Cornel Group.

Red-fruited Viburnums. With the exception of the species which belong to the *Opulus* Group no American Viburnums have red fruit, but in eastern Asia there are several red-fruited species. The handsomest of these in the Arboretum is *V. dilatatum*, which is a native of Japan, Korea, and western China. It is a large, shapely and vigorous shrub with broad, abruptly pointed leaves and wide flat clusters of flowers which are followed by small bright red fruits. This is a good shrub for the decoration of summer and Autumn gardens. The fruit is smaller and less showy than that of another red-fruited Japanese species, *V. Wrightii*. This is a smaller shrub and flowers earlier than *V. dilatatum*. The flower-clusters are smaller and the plants are not always perfectly hardy in exposed situations, but the fruit is larger and handsomer than that of the other red-fruited Viburnums of eastern Asia. Another of these plants, *V. theiferum*, from western China is not yet in flower. It is a tall narrow shrub with erect stems, small leaves and small flower-clusters. It has little to recommend it as a flowering plant but the fruit is large, abundant and of good color, and the plant has an economic interest as an infusion of the leaves is the "sweet tea" used by the monks of the monasteries on Mt. Omei, one of the five sacred mountains of China.

Potentilla fruticosa Veitchii. Nearly all the shrubby species of this genus and their hybrids are attractive plants with yellow, white or cream-colored flowers which look like miniature Roses. *P. fruticosa* is pretty generally distributed in most of the countries of the Northern Hemisphere, and in the western part of Massachusetts has now taken such possession of the ground that it has ruined hundreds of acres of upland pastures. The flowers are bright yellow, but on a variety from western China (var. *Veitchii*) the flowers are pure white. This is a dwarf shrub which blooms here freely every year, and the plants are covered during several weeks with flowers which begin to open at the end of May. This plant can be seen in the Shrub Collection and with the other Chinese plants on Bussey Hill.